

REMARKS / DISCUSSION OF ISSUES

Claims 1-20 are pending in the application; claims 5-20 are newly added.

The applicant thanks the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority documents, and for stating that the drawings are acceptable.

The Office action rejects claims 3 and 4 under 35 U.S.C. 101. The applicant respectfully traverses this rejection.

The Office action asserts that the claimed program and computer program product is non-functional. The applicant respectfully disagrees. The applicant clearly claims a program and product that cause a television or set-top-box to effect filtering, masking, and modification actions to an input signal to produce an output signal. The applicant respectfully maintains that causing a television or set-top-box to effect these actions is functional, and provides the advantages noted in the applicant's specification. Of particular note, the output signal produced is likely to exhibit fewer blocking artifacts than the input signal.

The Examiner's attention is requested to MPEP 2106:

"Office personnel have the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. ***Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101.***

The applicant respectfully maintains that causing a television or set-top-box to modify an input signal to produce the output signal as claimed is a practical application in the technological arts, and thus the rejection of claims 3 and 4 under 35 U.S.C. 101 is unfounded, per MPEP 2106.

The Office action rejects claim 1 under 35 U.S.C. 103(a) over Hsieh (USP 5,594,767) and Moronaga (USP 5,229,864). The applicant respectfully traverses this rejection.

Claim 1 claims a method that includes low pass filtering an input signal to provide filtered samples, determining a correction area by computing mask values based on the filtered samples, and adding a random value to the filtered samples belonging to the correction area to produce an output signal.

The Office action acknowledges that Hsieh does not teach adding a random value to filtered samples to produce an output signal.

The Office action notes that Moronaga teaches adding a random value to input samples.

The Examiner's attention is requested to MPEP 2143, wherein it is stated:

"THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION ... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). ... The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)".

also,

"THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."

The applicant respectfully maintains that there is no suggestion to combine Hsieh and Moronaga, and that such a combination would render the prior art unsatisfactory for its intended purpose.

Hsieh teaches modifying boundary regions to accentuate differences, and to minimize noise effects. Moronaga teaches modifying boundary regions to de-emphasize differences, and to add noise effects. One of ordinary skill in the art would not be lead to combine these contrary teachings.

The Office action asserts that the motivation for combining Moronaga and Hsieh "would have been that adding random noise signals helps to eliminate distortions of the block (region) contours in the resultant image". However, Hsieh teaches a technique that is targeted for the processing of medical images, and specifically teaches techniques for removing random noise signals from the resultant image. The Office action's suggestion of adding noise to the medical images of Hsieh is contrary to the intent and purpose of Hsieh's teachings.

Hsieh specifically teaches: "The above described algorithm, which includes generation of the enhancement mask, increases image sharpness and reduces the levels of image noise" (Hsieh, column 6, lines 12-14).

Moronaga specifically teaches: "random noise serves to reduce a distortion ascribable to a contour which appears at the border between nearby blocks" (Moronaga, column 12, lines 54-56).

Because Hsieh teaches accentuating edges and reducing noise, whereas Moronaga teaches de-emphasizing borders by adding noise, the applicant respectfully maintains that there is no suggestion in the prior art to combine these teachings.

Further, if the increased-noise teachings of Moronaga are applied to the decreased-noise teachings of Hsieh, the applicant respectfully maintains that the combination will be unsatisfactory for the intended noise-reducing purposes of Hsieh.

Because a combination of Hsieh and Moronaga is not suggested by the prior art, and because the proposed combination would render the prior art unsuitable for its intended purpose, the applicant respectfully maintains that the rejection of claim 1 over Hsieh and Moronaga is unfounded, per MPEP 2143.

The Office action rejects:

claim 2 under 35 U.S.C. 103(a) over Hsieh, Moronaga, and Suzuki
(USP 5,907,370); and

claims 3-4 under 35 U.S.C. 103(a) over Hsieh, Mononaga, and Nakaya
(USP 6,295,376). The applicant respectfully traverses these rejections.

Claims 2-4 are dependent upon claim 1. In these rejections, the Office action relies upon the combination of Hsieh and Moronaga for teaching the elements of claim 1. As noted above, there is no suggestion in the prior art to combine Hsieh and Moronaga, and the proposed combination would be unsatisfactory for the intended purpose of either Hsieh or Moronaga. As such, the applicant respectfully maintains that the rejections of claims 2-4 under 35 U.S.C. 103(a) based on the combination of Hsieh and Moronaga are unfounded, per MPEP 2143.

In view of the foregoing, the applicant respectfully requests that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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